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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YAO, KWANG BIN

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,749

Applicant(s) ~~6~~

SURI, ATUL

Examiner

Kwang B. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-25 is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 5-8, 16 and 19-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because there are no descriptive legends in Figs. 4A, and 4B; and Figure 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The following features are not disclosed in the specification: the WAN portion coupled to the wide area network in accordance with a communication interface methodology selected from the group consisting of T1, T3, 10/100BASE-Tx, 1000BASE-T.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 11-13, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Mannering et al. (US 6,137,839).

Mannering et al. discloses a communication system comprising the following features: regarding claim 1, a self-contained data communication system of the type providing simultaneous (column 5, lines 40-43) broadband connectivity to multiple access locations at DSL rates, the system configured for installation in a user premises (Fig. 2a, Home 210) having multiple subscriber access location ports, the system comprising: a multiplicity of subscriber data

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signal lines (Fig. 2a, line 140), each subscriber line (Fig. 2a, line 140) coupled between the system and a subscriber port of a user premises (Fig. 2a, Home 210); a plurality of line cards (Fig. 2a, MODEMS, Fig. 2b, xDSL MODEM CARDS), disposed within a housing, each line card further including; a DSL modem bank (Fig. 2a, MODEMS); detector circuitry coupled between the modem bank (Fig. 2a, MODEMS) and the multiplicity of subscriber signal lines, the detector circuitry polling (column 9, lines 31-32) the signal lines to thereby detect a request for data service; and a control processor (Fig. 2b, CONTROL PROCESSOR), the processor (Fig. 2b, CONTROL PROCESSOR) assigning a particular one of the DSL modems comprising the modem bank (Fig. 2a, MODEMS) to a subscriber upon detection of a request for data service on a particular subscriber signal line; and a WAN/trunk card (Fig. 2b, WAN INTERFACE CARD), disposed within the housing and coupled to the plurality of line cards (Fig. 2a, MODEMS, Fig. 2b, xDSL MODEM CARDS) by a signal bus, the WAN/trunk card (Fig. 2b, WAN INTERFACE CARD) connected between each modem bank (Fig. 2a, MODEMS) and a wide area network so as to effect bi-directional broadband communication therebetween; regarding claim 11, in a self-contained data communication system of the type configured for installation in a user premises (Fig. 2a, Home 210) having multiple subscriber access location ports, a method for providing simultaneous (column 5, lines 40-43) broadband connectivity to said multiple access location ports at DSL rates, the method comprising: coupling a subscriber data signal line between the system and each of a multiplicity of subscriber ports of a user premises (Fig. 2a, Home 210); providing a plurality of line cards (Fig. 2a, MODEMS, Fig. 2b, xDSL MODEM CARDS) within a housing, each line card further including a DSL modem bank (Fig. 2a, MODEMS); aggregating said subscriber data lines into the plurality of line cards (Fig. 2a, MODEMS, Fig. 2b,

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xDSL MODEM CARDS) through high density connectors (Fig. 2a, FRAME ROOM T R); detecting a request for service on particular ones of the subscriber data lines; and concentrating (Fig. 3c, MDSL CONCENTRATOR, column 9, lines 27-28) said subscriber data line service requests by servicing said subscriber data lines with a number of modems less than the number of subscriber data lines; regarding claim 12, providing detector circuitry coupled between the modem bank (Fig. 2a, MODEMS) and the multiplicity of subscriber signal lines; polling (column 9, lines 31-32) the signal lines with the detector circuitry to thereby detect a request for data service; and providing a control processor (Fig. 2b, CONTROL PROCESSOR), the processor (Fig. 2b, CONTROL PROCESSOR) assigning a particular one of the DSL modems comprising the modem bank (Fig. 2a, MODEMS) to a subscriber upon detection of a request for data service on a particular subscriber signal line; regarding claim 13, providing a WAN communication interface card (Fig. 2b, WAN INTERFACE CARD), disposed within the housing and coupled to the plurality of line cards (Fig. 2a, MODEMS, Fig. 2b, xDSL MODEM CARDS) by a signal bus; coupling the WAN communication interface card (Fig. 2b, WAN INTERFACE CARD) between each modem bank (Fig. 2a, MODEMS) and a wide area network so as to effect bi-directional broadband communication therebetween thereby providing broadband access to the wide area network from any one of the subscriber data signal lines (Fig. 2a, line 140); regarding claim 17, a method for providing simultaneous (column 5, lines 40-43) broadband connectivity to multiple access locations implemented in a premises remote from a user's home service location, the method comprising: aggregating a multiplicity of subscriber data lines; polling (column 9, lines 31-32) the data lines so as to detect a request for data service on particular ones thereof; servicing multiple simultaneous (column 5, lines 40-43) data service

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requests through a plurality of DSL modems; and concentrating (Fig. 3c, MDSL CONCENTRATOR, column 9, lines 27-28) multiple DSL communication sessions through a wide area network interface so as to facilitate multiple simultaneous (column 5, lines 40-43) communication sessions between a wide area network and multiple users using broadband access from a premises remote from and unrelated to a user's home location. See column 5-11.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mannering et al. (US 6,137,839).

Mannering et al. discloses the claimed limitations above. Mannering et al. does not disclose the following features: wherein each line card includes **sixteen** DSL modems, each line card further configured to couple to **128** subscriber signal lines through high density connectors, each line card controlling access to particular ones of the modems by all **128** subscriber signal lines; regarding claim 3, wherein each housing is configured to include **four** line cards, the system configured to provide simultaneous access by **sixty** four DSL modems to a wide area network, each housing defined system providing broadband connectivity to **512** subscriber signal lines; regarding claim 14, wherein each line card includes **sixteen** DSL modems, each line card further configured to couple to **128** subscriber data signal lines, each line card controlling access

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to particular ones of the modems by all **128** subscriber signal lines; regarding claim 15, wherein each housing is configured to include **four** line cards, the system configured to provide simultaneous access by **sixty** four DSL modems to a wide area network, each housing defined system providing broadband connectivity to **512** subscriber signal lines. Mannering et al. does disclose claimed features of DSL modems (Fig. 2a, MODEMS), subscriber signal lines (Fig. 2a, lines 140), line cards (Fig. 2b, xDSL MODEM CARDS); while it does not explicitly disclose the exact number of modems, subscriber signal lines, and line cards. However, it would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Mannering et al. by using any number of the modems, subscriber signal lines, and line cards, in order to provide a suitable and scalable system upon users demand.

8. Claims 4, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mannering et al. (US 6,137,839) in view of Modarressi et al. (US 6,667,971).

Mannering et al. discloses the claimed limitations above. Mannering et al. does not disclose the following features: regarding claim 4, in-band authentication means for communicating with a remote record storage facility; a memory storage area configured to receive and maintain subscriber record information provided by the remote record storage facility; and wherein access to a broadband connection to the wide area network is granted in accordance with subscriber record information maintained in the memory storage area; regarding claim 18, interrogating a user for an identification indicia upon receipt of a data service request; establishing an in-band communication channel with a remote record storage facility; receiving subscriber record information, associated with the user, provided by the remote record storage facility; and granting access to a broadband connection to the wide area network in accordance

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with the subscriber record information. Modarressi et al. discloses a communication system comprising the following features: regarding claim 4, in-band authentication means (Fig. 3A, Continuous Service Provider 302) for communicating with a remote record storage facility (Proxy AAA system 305); a memory storage area configured to receive and maintain subscriber record information provided by the remote record storage facility (Proxy AAA system 305); and wherein access to a broadband connection to the wide area network is granted in accordance with subscriber record information maintained in the memory storage area (column 9, line 42 to column 10, line 10); regarding claim 18, interrogating a user for an identification indicia upon receipt of a data service request (column 8, lines 61-62); establishing an in-band communication channel with a remote record storage facility (Proxy AAA system 305); receiving subscriber record information, associated with the user, provided by the remote record storage facility (Proxy AAA system 305); and granting access to a broadband connection to the wide area network in accordance with the subscriber record information (column 9, line 42 to column 10, line 10). It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Mannering et al., by using the features, as taught by Modarressi et al., in order to provide a continuous secure way for users to get various service while simultaneously accessing non-secure entities such as the Internet. See Modarressi et al., column 6, lines 29-32.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mannering et al. (US 6,137,839) in view of Focsaneanu et al. (US 5,991,292).

Mannering et al. discloses the claimed limitations above. Mannering et al. does not disclose the following features: regarding claim 9, wherein the WAN/trunk card further

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comprises: a WAN connection portion; a control portion, the control portion further including; a control processor; and out-of-band communication means, the out-of-band communication means bi-directionally communicating with a network management system; and wherein the control portion is functionally bifurcated from the WAN portion, such that the WAN portion may be implemented in accordance with a multiplicity of communication interface methodologies interchangeably. Focsaneanu et al. discloses a communication system comprising the following features: regarding claim 9, wherein the WAN/trunk card (Figs. 18, 19, 20, Access Module) further comprises: a WAN connection portion (Fig. 20, connection with ISP #1); a control portion (Fig. 20), the control portion further including; a control processor (Fig. 20, CPU); and out-of-band communication means (Fig. 20, Router), the out-of-band communication means bi-directionally communicating with a network management system (Fig. 20, Connection Table); and wherein the control portion is functionally bifurcated from the WAN portion, such that the WAN portion may be implemented in accordance with a multiplicity of communication interface (ISP #1, ISP #2, Enterprise Network) methodologies interchangeably.). It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Mannering et al., by using the features, as taught by Focsaneanu et al., in order to provide less cost and enhance the capabilities of the overall global communication network. See Focsaneanu et al., column 3, lines 26-30.

Allowable Subject Matter

10. Claims 23-25 are allowed.

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11. Claims 5-8, 16, 19-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kimbrough (US 6,781,981) discloses an improved digital loop carrier system.

Chiu et al. (US 6,597,689) discloses a SVC signaling system.

Barzegar et al. (US 6,363,079) discloses a multifunction interface facility.

Horton (US 6,128,300) discloses a line card with modem interface.

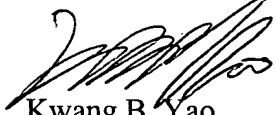
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Kwang B. Yao', is written over the printed name.

Kwang B. Yao
December 8, 2004